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Sent: Tuesday, May 12, 2009 11:29 AM
To: Owen Williams; CN=Patrick F Sullivan/O=ChubbMail@ChubbMail
Subject: Fw: DROOLS vs. Blaze
Attach: FICO 2009 BA Drools - DRAFT.doc

FYI

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Subject
DROOLS vs. Blaze

Henry -

Attached is a draft document that we have put together based on our current knowledge that highlights some of the differences between the current version of Blaze Advisor and Drools. Do you have time available on Wednesday of this week for us to get on the phone and walk through this? Also, when do you plan to meet with the team in the UK to discuss this issue?

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May 2009

FICO Blaze Advisor

High Level Overview - Blaze Advisor 6.7 vs. Drools

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Blaze Advisor and Drools Comparison

This document is intended to provide an overview and comparison of FICO Blaze Advisor and Drools' functionality. At their core, these two rule engine implementations rely upon an inference engine based upon Charles Forgy's Rete algorithm. Drools Rules extends this by the implementation of a LEAPS algorithm, whilst FICO use a later implementation Rete III developed by Charles Forgy, for optimized inference.

The Blaze Advisor system is the leading rules management technology for managing and automating business decision processes. Blaze Advisor is a comprehensive, advanced rules management solution that covers the entire process for developing, deploying and maintaining rules-based business applications. This leading-edge technology radically improves the way enterprises manage business applications and processes by enabling them to develop complex applications faster, respond quickly to changing business factors, and reduce the total cost of day-to-day operations.

Drools is an open source Business Rules Management system and is an enhanced Rules Engine implementation, ReteOO, based on Charles Forgy's Rete algorithm tailored for the Java language.

Functionality	Drools	Blaze Advisor 6.7	Rationale / Comment
Authoring			
Standalone IDE with Guided Wizard Driven Development		✓	Feature-rich IDE that provides features and capabilities not found in Eclipse-based development plug-ins.
Decision Flow		✓	Visual decision flow allows users to see how different groups of rules are applied.
Decision Tree		✓	Visual decision trees for easy authoring and understanding of many rules.
Decision Table	✓	✓	Decision tables for tabular representation of logic.
Scorecards		✓	Integration of analytics into the decision process for better decisions.
English Like Syntax		✓	Easy syntax for users to read and understand.
Configurable Domain Language	✓	✓	Each tool allows for configurable language, Blaze does it to make business rule authoring more accessible to the business user.
Browser Based Business User Interface		✓	The Blaze RMA is a feature-rich environment that allows business users to create and edit rules, test rules, verify logic, and optionally simulate the outcome of rule changes against a

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Functionality	Drools	Blaze Advisor 6.7	Rationale / Comment
			portfolio of data.
Functions	✓	✓	Logic not represented by rules can exist in functions.
Simple Templates	✓	✓	Simple templates to lay out reusable components.
Complex Templates		✓	Blaze Advisor's templating capabilities are so powerful, they are patented. This allows users to create virtually any template.
Cross Reference Browser		✓	Visual browser for understanding the relationship between objects in a rule project. Helps quantify risk when updating or modifying the project.
RETE Tree	✓	✓	Both tools support RETE logic, the algorithm that lets the rules engine decide which rules to execute and when.
Management Properties		✓	Metadata can be associated with any rule or object in Blaze Advisor, giving a user the ability to track custom information about an object like what requirement it came from, etc.
Analytic Model Integration		✓	Automated integration of analytic models allows Blaze Advisor to easily import and represent models as part of an overall decision process.
Business User Interface			
Browser Based		✓	Browser based interface to make rule authoring available to the business user or without the IDE. Far more flexible than the "Guvnor" application in Drools.
Authentication and Authorisation		✓	Blaze provides an authorization mechanism and also allows integration into your existing security system. Use your existing security model saves time and simplifies security compliance.
Version Control		✓	Version control of every object in the project, ability to see previous objects, compare, roll back changes.

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Functionality	Drools	Blaze Advisor 6.7	Rationale / Comment
Business Terms		✓	
Configurable Look and Feel		✓	Powerful templating capability allows virtually any look or feel to the user interface.
Decision Trees		✓	Business users can see and edit Decision Trees in the web interface.
Decision Tables		✓	Business users can see and edit Decision Tables in the web interface.
Scorecards		✓	Business users can see and edit Scorecard models in the web interface.
Testing			
Breakpoints, traces and watches	External	✓	Gives ability to step through rules one line at a time to understand the rules and how they are working.
Execution Browser		✓	Visual graph of execution structure with ability to see how and when each piece is behaving.
Performance Measurement and Reporting		✓	Advanced performance information for entire branches of logic all the way down to specific rules.
Conflict Reporting		✓	Rule conflict analysis provides 28 different ways that rules can be checked and flagged if they are not formed properly, rules that conflict with each other, gaps in logic, overlaps, etc.
Configurable Logging		✓	Logging interface allows capture of decision process from the high level all the way to a very granular level.
Decision Logic Repository			
Centralised Repository		✓	A single centralized repository allows developers and business users to collaborate on changes.
Hierarchical Structure	✓	✓	Hierarchical structure for storing rules allows easy navigation, breaking down the rule structure along lines of business, activities.



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Functionality	Drools	Blaze Advisor 6.7	Rationale / Comment
			geographies, etc. to make finding rules easier.
Authentication and Authorisation	External	✓	Control of resources in repository can be done internally or hooked to existing security system.
Version Control	External	✓	Version control of all objects is built into Blaze, making it easy to track changes and roll back changes if needed.
Release Management	External	✓	Integrated release management capabilities allow Blaze Advisor implementations to be deployed quickly.
Platform Agnostic Rule Representation		✓	Rules are not written in Java or .Net or COBOL syntax. Rules are represented in a
Repository Queries (see Management Properties)		✓	Queries on rules or the contents of a rule allow business users and developers to search rules by content, by action, by management properties, etc.
Deployment and Execution			
Java	✓	✓	Rules can be deployed in a Java system.
.NET	✓	✓	Rules can be deployed in a .Net system.
COBOL		✓	Blaze Advisor can generate COBOL code that matches the rules, so you can be sure that the same rule is running in Java or .Net and on the mainframe system.
Deployment Management		✓	Blaze's Deployment Manager tool and wizards allows easy deployment of rule logic.
'Hot Swap' Deployment		✓	Rules can be updated without stopping and starting servers for true 24x7 rule execution.
RETE	✓	✓	The RETE algorithm can be used to allow the rules engine to determine which rules to apply in a given situation. This is the classic algorithm that most rules engines use.
LEAPS	✓		LEAPS is a variant of RETE.



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Functionality	Drools	Blaze Advisor 6.7	Rationale / Comment
Optimized Inference (RETE III)		✓	Blaze Advisor has the most optimized RETE algorithm, called RETE III. This is the best performing RETE algorithm available and is specific to Blaze Advisor. Blaze Advisor also allows use of the classic RETE algorithm.
Compiled Sequential		✓	When performance is key rules can be compiled to get the fastest possible performance.
Forward Chaining	✓	✓	Forward chaining rules are if-then rules. When the "if" part is true, the "then" part actions will be executed.
Backward Chaining		✓	Rules can execute in a backwards mode to help find data needed to make a decision.
Rule Server		✓	A rule server component is part of the Blaze Advisor deployment.
Deployment Support for J2EE EJB		✓	Wizards exist to help deploy a Blaze Rule Service as a J2EE compliant Enterprise Java Bean.
Deployment Support for Web Services		✓	Wizards exist to help deploy a Blaze Rule Service as a Web Service in either Java or .Net.
Data Sources			
Java Objects	✓	✓	Data can be sent into the rules engine as a java object.
.NET Assemblies	✓	✓	Data can be sent into the rules engine as a .Net assembly.
RDBMS		✓	Blaze Advisor has wizards that allow use of an existing database as a source of data.
XML Messages (schema validated)		✓	Blaze Advisor has wizards that allow use of existing XML data as input and to create
COBOL Copybooks		✓	Blaze Advisor has wizards that allow use of existing COBOL copybooks as a format for data fields.



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Functionality	Drools	Blaze Advisor 6.7	Rationale / Comment
Support Services and Education			
HTML Documentation	✓	✓	Online help is available in HTML format.
PDF Documentation		✓	The Blaze Advisor documentation set also comes in PDF format, convenient for printing and searching.
Best Practices		✓	Best practices information accompanies the documentation set.
White Papers		✓	
Tutorials		✓	Extensive tutorials are shipped with Blaze Advisor.
Examples	✓	✓	Sample code is available.
Product Training	✓ (US only)	✓	Professional training is available for Blaze Advisor.
Product Support	✓ (US only)	✓	Product support is available for Blaze Advisor.

Summary – Key Differentiators

1. Blaze Advisor provides an "out of the box" RMA to allow business users access to view, modify and create rules. In most instances, the RMA does not need to be modified when changes occur.
2. Blaze Advisor has significant functionality specifically targeting business users – including reports, querying, testing, simulation, etc.
3. Blaze Advisor has integration with PMML allowing for efficient model integration and deployment.
4. Blaze Advisor is part of FICO's Decision Management Suite allowing easy integration with other FICO products that allow organization to further improve and connect decisions across the enterprise.
5. Blaze Advisor is cross-platform allowing deployment in Java, .NET and COBOL from the same rule base
6. Blaze Advisor uses SRL which is a very English-like programming language which improves visibility and transparency over non- English-like programming languages.
7. FICO provides robust training and product support for Blaze Advisor.

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